Serial No. 10/672,695 Filed: 9/26/03 Inventors: Boyle, et al. Attorney Docket: 6006-107

Customer No. 29,335

Amendments to the Specification:

Please amend paragraph 2 by replacing the originally filed paragraph 2 with the following amended paragraph 2:

[0002] This application claims priority from U.S. Provisional Application Serial No. 60/414,209 filed September 26, 2002 and is related to the following co-pending, commonly assigned U.S. Patent Applications, which are hereby incorporated by reference: U.S. Serial No. 09/745,304, filed December 22, 2000 which is a divisional of U.S. Serial No. 09/443,929 filed November 19, 1999 and issued as U.S. Pat. No. 6,379,383 on April 30, 2002, U.S. Serial No. 09/707,685 filed November 7, 2000, U.S. Serial No. 10/135,316 filed April 29, 2002, U.S. Serial No. 10/135,626 filed April 29, 2002 and U.S. Serial No. 10/120,800 filed April 11, 2002, published as US2003004567 on January 2, 2003.

Please amend paragraph 82 by replacing the originally filed paragraph 82 with the following amended paragraph 82:

[0082] Five samples of metals and metal alloys commonly used to make stents were prepared as flat, square 1 x 1 cm pieces: electropolished 316L stainless steel, nitinol with two different surface preparations: electropolishe[[3]]d and electropolished/heat-treated, gold, tantalum and titanium. All sample pieces underwent a standardized 5 step ultrasonic cleaning process as follows: initial bath in detergent (20% Extran 1000, VWR Science, West Chester, P.C.) followed by distilled water rinse, methanol rinse, acetone rinse and distilled water rinse, in sequence.

Please amend paragraph 84 by replacing the originally filed paragraph 84 with the following amended paragraph 84:

[0084] Surface energy of all materials was determined by the advancing contact angle measurement using a video contact angle system (VCAS 2500 XE, AST systems, Billerica, MA.) and calculated by the harmonic mean method. Water, formamide and

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xylene were used to compute[[r]] total surface energy and the polar and dispersive components. Ten videocaptures per se[[4]]cond of the advancing fluid droplet/solid interface were obtained for water and formamide and 65 captures per second for xylene. All experiments were repeated 4 times.

Please amend paragraph 85 by replacing the originally filed paragraph 85 with the following amended paragraph 85:

[0085] Total surface energy of 316L stainless steel, electropolished (ep) nitinol, electropolished and heat treated (epht) nitinol, gold, tantalum and titanium, ranged from 32.8 dyne/cm for ep nitinol to 64.6 dyne/cm or 316L stainless steel with an average of $43.9[[\pm \Leftrightarrow \pm 4.8 \text{ dyne/cm}]]$. The total surface energies for each metal tested is depicted in Figure 2. Of [[T]]the polar and dispersive, or non-polar, components of the total surface energy of each metal, are depicted in Figure 3, with the non-polar component is being the largest with an average polar/non-polar ratio of $0.21[[\pm \Leftrightarrow \pm 0.07]]$.

Please amend paragraph 86 by replacing the originally filed paragraph 86 with the following amended paragraph 86:

[0086] Protein binding was found to be relatively uniform for all metal surfaces studied. Of the three proteins tested, albumin adsorption was lower than fibronectin on all metals, and also lower than fibrinogen except for adsorption on gold and titanium, as illustrated in Figure 4. The fraction of protein removed after elution was higher for albumin than for either fibrinogen or fibronectin for all metal surfaces except for gold and titanium.

Please amend paragraph 90 by replacing the originally filed paragraph 90 with the following amended paragraph 90:

[0090] Examination of the color level of the force volume images, it was noted that the color for the volume images for gold and stainless steel are relatively homogeneous compared to the image for Nitinol. Additionally, gold and stainless steel

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appear to have similar electrostatic force levels that on average would be higher than the level obtained for the Nitinol image after averaging in the darker, or lower, measurements depicted. Figure 5 is a graph which depicts quantitative measurements taken on the metal samples, while Figure 6a graphically reflects the force volume images and Figure 6b are the individual force curves for each image.

Please amend paragraph 91 by replacing the originally filed paragraph 91 with the following amended paragraph 91:

[0091] Since the AFM used a negatively charged silicon nitride tip, as the tip is brought close to a negatively charged surface, double layer forces cause the tip to bend bend away from the surface and depart from a linear patter of descent to the surface. It is that departure that is measured as repulsive force, depicted by the shaded areas in Figure 6a. On the other hand, where the surface exhibits a positive charge relative to the tip, an attractive force is present which causes the tip to bend toward the surface and, also, depart from a linear descent to the surface. Thus, the force volume images indicate that both stainless steel and gold exhibit net repulsive forces whereas the curve for Nitinol exhibits a slight attractive force for the pixel selected. The cross-hair on the Nitinol curve represents a dark pixel on the force volume curve. Selection of a light colored pixel in the force volume image would have yielded a repulsive curve, demonstrating the heterogeneity of the electropolished Nitinol surface.

Please amend paragraph 116 by replacing the originally filed paragraph 116 with the following amended paragraph 116:

[0116] Figure 15 illustrates yet another alternative opening pattern 150 in which there are a plurality of different length dimensions of the longitudinal slots 152, 156, 158, all having filleted openings 154 at ends thereof. Additionally, the opening pattern 150 is characterized by having groups of longitudinal slots 152, 156, 158 arrayed parallel to the longitudinal axis of the metal thin film covering and groups of longitudinal slots 152, 156 and 158 arrayed perpendicular to the longitudinal axis of the metal thin film covering

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such that a first group 150a and 150c have a common longitudinal axis, while second group 150b and fourth group 150d have a common longitudinal axis that is also perpendicular to the longitudinal axis of the first 150a and third 150c groups. Within each group adjacent rows of longitudinal slot openings are staggered on one-half length offsets. [[.]] In this manner, the microporous metal thin film covering has a generally checkerboard pattern of opening groups and will exhibit both radial and longitudinal expansibility.[[.]]

Please amend paragraph 126 by replacing the originally filed paragraph 126 with the following amended paragraph 126:

[0126] Figure 27 depicts an embodiment of structural support element 300 in which the there are provided a plurality of linear longitudinal elements 304a-304e, and a plurality of undulating circumferential elements 306a-306e, where each of the plurality of linear longitudinal elements 304a-304e form four point connections 305 with circumferential elements except for an end terminal circumferential element 304e which form three point connections 305. Notably, at least some of the linear longitudinal elements 304a-304e further have a terminal extension 309 that projects outward from at least one terminal end of the structural support element 300 and has a filleted rounded end 309a that serves as an attachment point for a metal thin film material (not shown). In accordance with a preferred embodiment, each of the undulating circumferential elements 306a-306e have a generally sinusoidal shape with a plurality of interconnected peaks 303 and valleys 301.

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